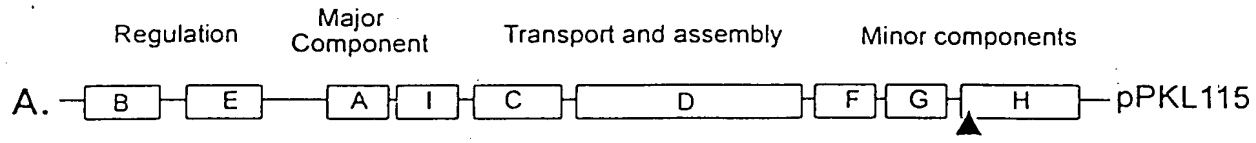
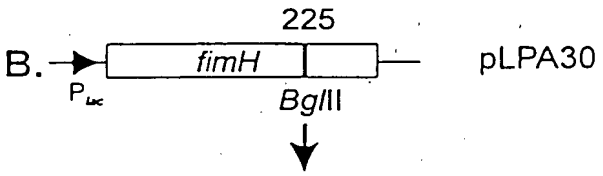




RS(H)$_6$*RS*	pMAS25
RS(H)$_6$*RS*(H)$_6$*RS*	pNSU36
*RS*ARPRSASGP*RS*PM**H**TSTTPP*RS*	pMAS38
*RS*RT**H**GPEGRP*RS*	pMAS39
*RS*SLSLFFRNR*RS*SVEDA**H**QTM*RS*	pMAS40
*RS*GANGREL**H**T*RS*	pMAS41
*RS*FSETAQSTG*RS*YVKFVWR**HH***RS*	pMAS42
*RS*ARG**H**VLISE*RS*	pMAS43
*RS***H**LSRLRGNR*RS*	pMAS44
*RS*RGVNDSPNG*RS*IT**H**IRRT**H**K*RS*	PMAS45
*RS*QVLRRPELI*RS*MPE**H**RRRE**H**R*S*	pMAS46
*RS*ERRTGETGL*RS***H**YGQLGYRR*RS*	pMAS47
*RS*LRNGILSR**H**R*S*	pMAS48
*RS*TVNGCVS**H**S*RS*GGLRASREV*RS*	pMAS49
*RS*KVRLRDE**H**E*RS*	pMAS50
*RS*EGR**H**RRGGM*RS*	pMAS51

Fig. 1

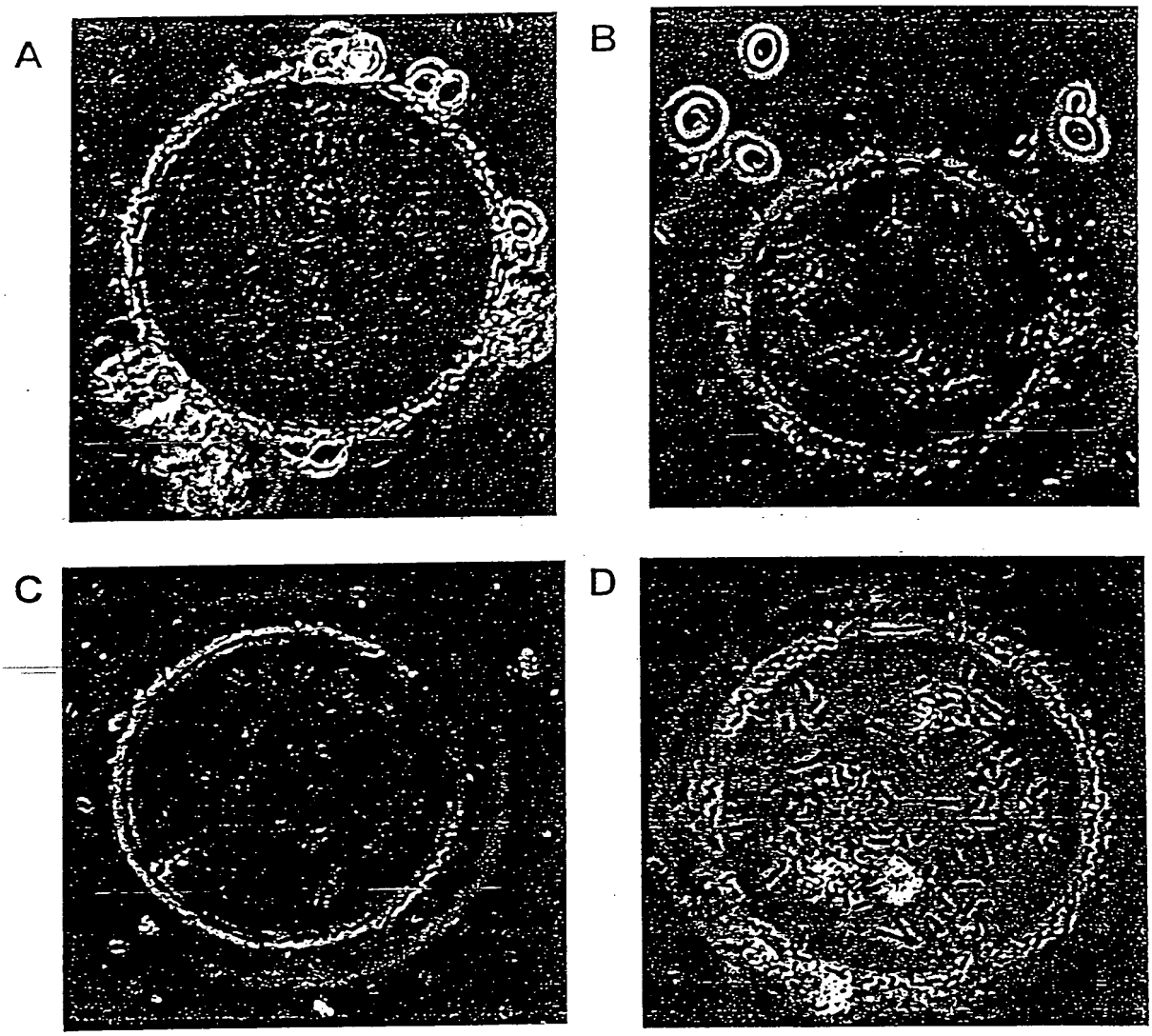


Fig. 2

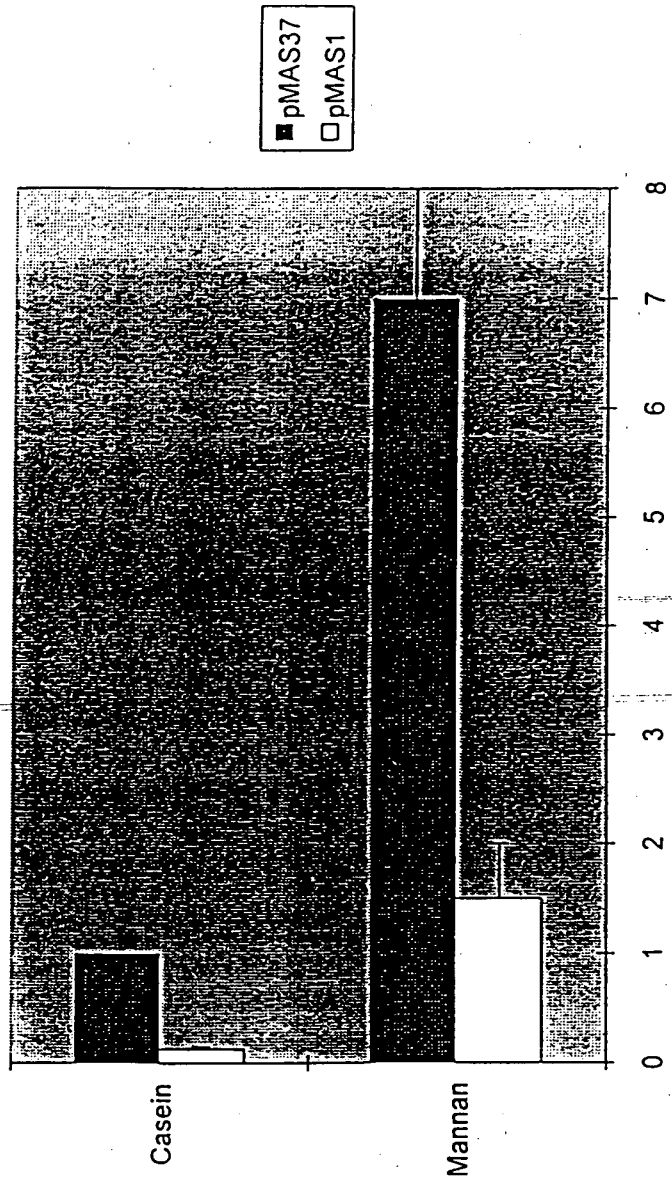

pMAS37
pMAS1
Number of cells bound (x10⁴)
0
1
2
3
4
5
6
7
8
Casein
Mannan

Fig. 3

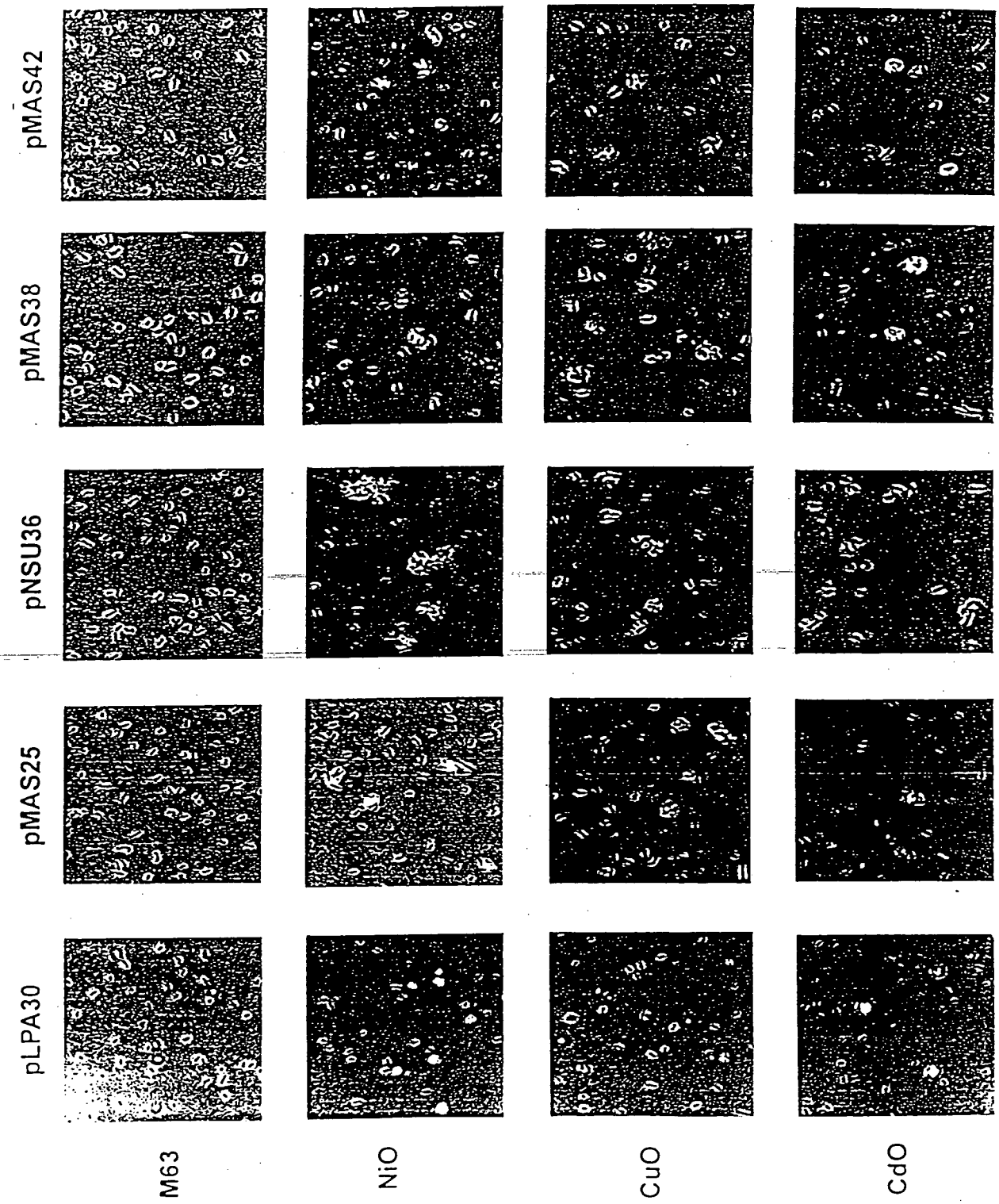
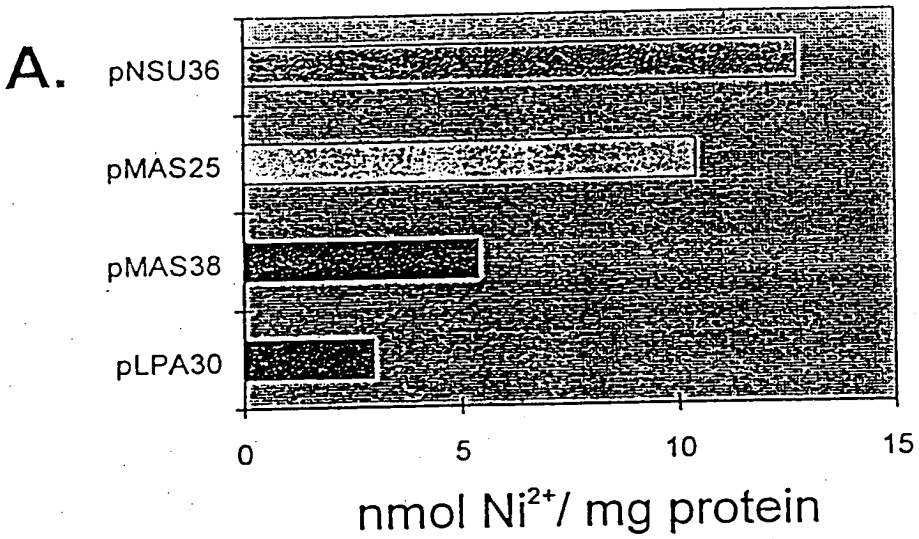


Fig. 4


A.
pNSU36
pMAS25
pMAS38
pLPA30
0
5
10
15
nmol Ni2+/ mg protein

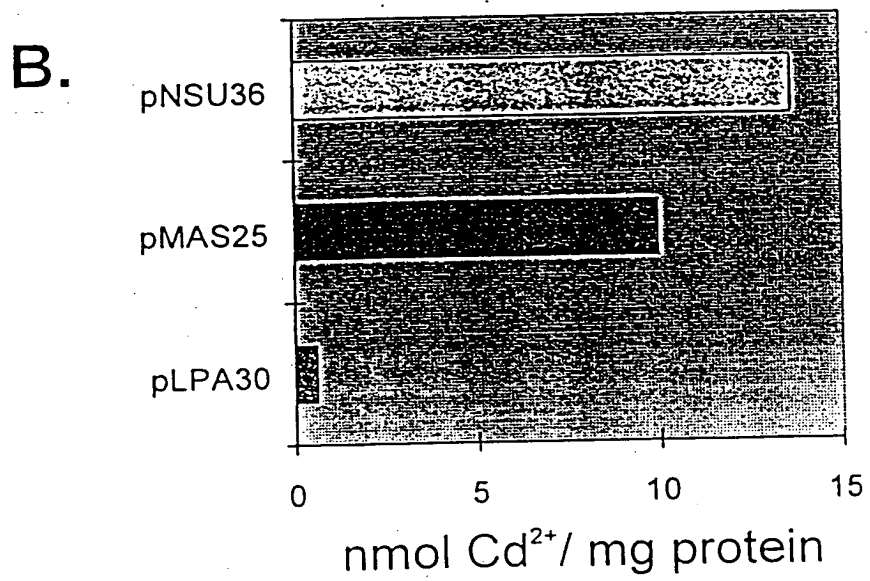

B.
pNSU36
pMAS25
pLPA30
0
5
10
15
nmol Cd2+/ mg protein

Fig. 5

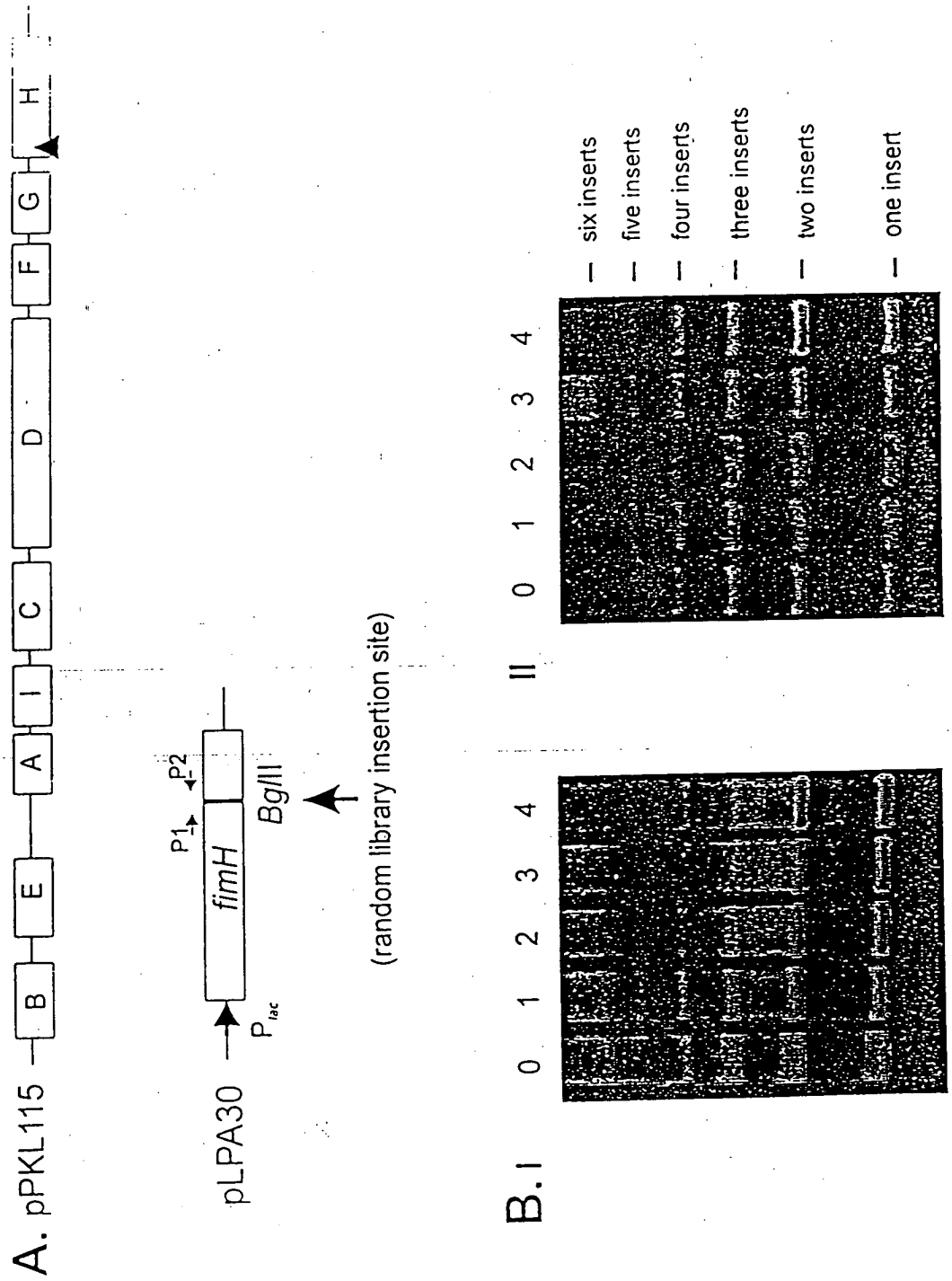

A. pPKL115
Regulation
Major Component
Transport and assembly
Minor components
B
E
A
I
C
D
F
G
H
pLPA30
P1
P2
fimH
BglII
P_{lac}
(random library insertion site)
B. I
0 1 2 3 4
II
0 1 2 3 4
six inserts
five inserts
four inserts
three inserts
two inserts
one insert

Fig. 6

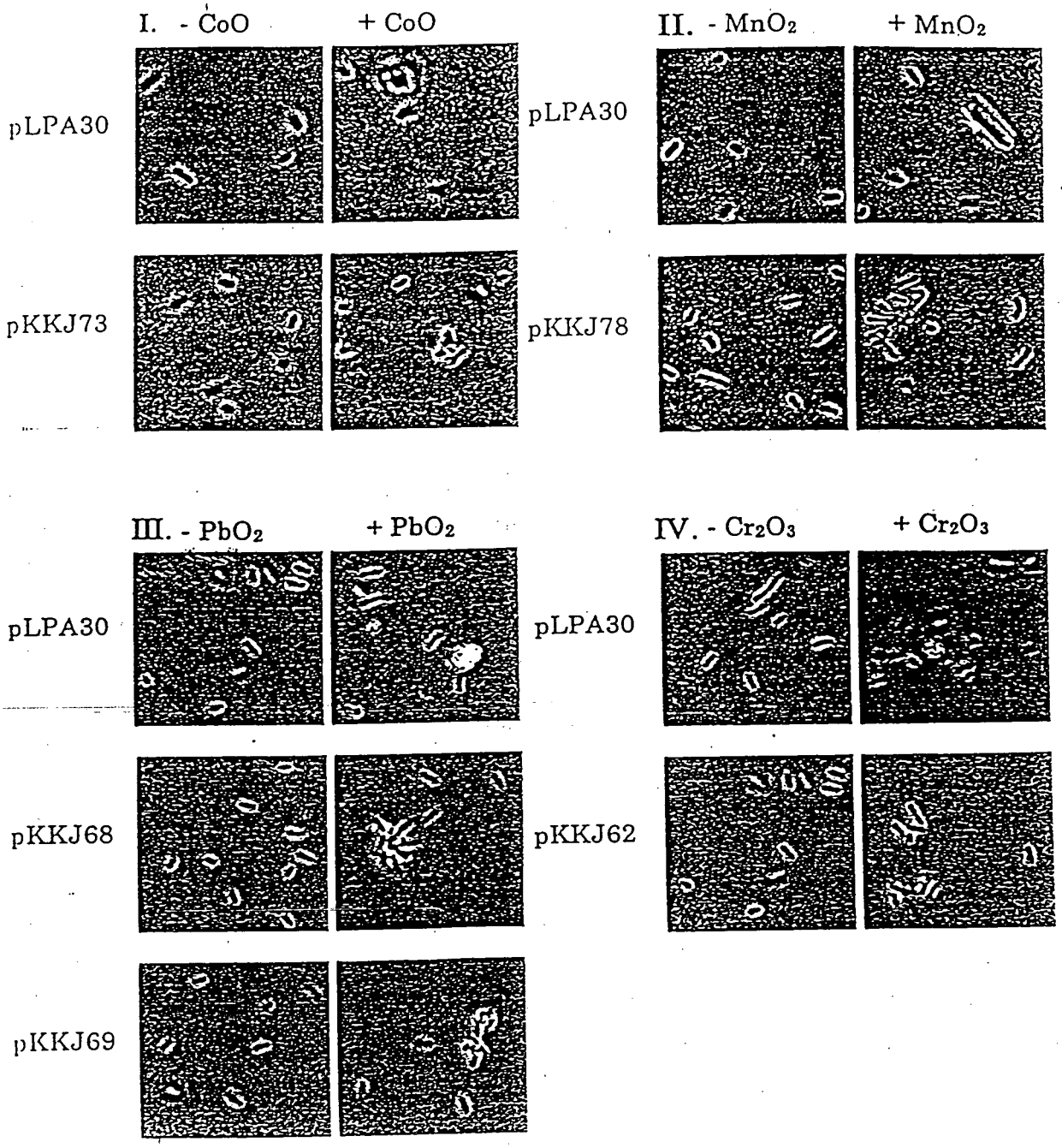

I. - CoO
+ CoO
II. - MnO_2
+ MnO_2
pLPA30
pLPA30
pKKJ73
pKKJ78
III. - PbO_2
+ PbO_2
IV. - Cr_2O_3
+ Cr_2O_3
pLPA30
pLPA30
pKKJ68
pKKJ62
pKKJ69

Fig. 7

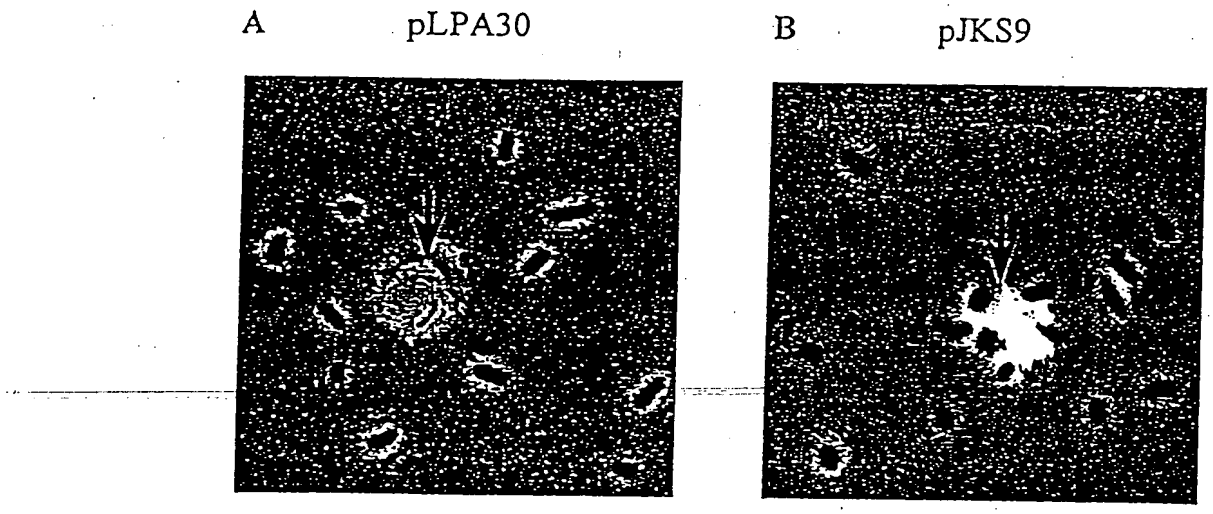


Fig. 8

Fig. 8